

ISIS - Feature #4022

Merge the IPCE version of Target and SpiceRotation into ISIS

2016-06-15 11:57 AM - Tyler Wilson

Status:	Closed	Software Version:
Priority:	High	
Assignee:	Tyler Wilson	
Category:	API	
Target version:	3.4.12 (FY16 R2 2016-03-17 Mar)	
Impact:	No anticipated impact to ISIS, as the changes made add to the functionality of the original classes and do not modify the existing functionality.	
Description		
<p>Some new functions and member variables were added to Target and SpiceRotation, which TargetBody needs to compile.</p> <p>The functions added to SpiceRotation are: polaRaCoefs(),poleDecCoefs(),pmCoefs(),poleRaNutPrecCoefs(),poleDecNutPrecCoefs(),sysNutPrecConstants(),sysNutPrecCoefs()</p> <p>The IPCE version of Target calls these functions, and also has two new member variables: SpiceInt * m_systemCode and QString * m_systemName.</p> <p>No testing in the unitTest for these functions (which are accessor functions returning std:vector objects), so that needs to be done. Since this ticket is blocking Ticket #3997 though, I will do a PROG commit, and then come back to add to the unit test.</p>		

History

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Additionally, these functions were also added to the SpiceRotation class:

- * loadPCFromSpice
- * loadPCFromTable
- * toJ2000Partial
- * usePckPolynomial
- * getPckPolynomial
- * setPckPolynomial (raCoef,decCoef,pmCoef)
- * getPckPolynomial
- * setEphemerisTimePckPolyFunction
- * getFrameType

The following data members:

- m_frameType
- m_tOrientationAvailable
- m_raPole
- m_decPole
- m_pm
- m_raNutPrec
- m_decNutPrec
- m_pmNutPrec
- m_sysNutPrec0
- m_sysNutPrec1
- m_dscale
- mTscale

New enumerations also added for:

- Source
- PckPolyFunction
- PartialType
- WRT_RotationRate

There was some modification to SpiceRotation::CacheLabel() which is used for writing out a Pvl label. Some of the extra data being written out because of the changes to this class broke app tests for the following applications:

- base/spiceinit
- base/spiceserver
- base/appjit
- control/sumspice
- apollo/apollopaninit
- mgs/apinit

#3 - 2016-06-27 04:57 PM - Tyler Wilson

- *Status changed from New to Closed*